

REMARKS

A. Request for Reconsideration

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remain of the position that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the amendments to the claims and the following remarks.

B. The Invention

The present invention is directed to a combination of a multi-pitch screw and a multi-pitch nut. In one of the novel aspects of the invention, both sides of the thread of the multi-pitch screw and the thread of the multi-pitch nut are formed with sections having a mild lead angle and sections having a steep lead angle are arranged alternately, continuously and stepwisely during a single turn along a spiral line.

C. Claim Status and Amendments

Claims 1-3, 10-11 and 17-18 are pending for further prosecution

Claims 1-3, 10, 11, 17 and 18 have been amended to clarify several informalities numerated by the Examiner. All dependent claims have been amended by changing "a multi-pitch screw and a multi-pitch nut according to claim 1" to "the multi-pitch screw and the multi-pitch nut according to claim 1."

Claim 1 has been amended by adding "having both sides of the thread". Support to this amendment can be seen in every figures of the invention.

Claim 2 has been further amend to clarify that "zero degree" is defined with respect to the normal plane of the axis of the screw.

Claims 3 and 11 have been amended to clarify its indefinination, which will be discussed later.

There is no new matter added by these amendments.

D. Rejections under § 112, second paragraph

Claims 3 and 11 had been rejected under 35 U.S.C. 112, second paragraph, as being indefinite to properly delineate what exactly is being engaged/disengaged.

Applicants have amended claims 3 and 11 to point out "the lead angle of said sections having the mild lead angle of the male screw is flatter than the lead angle of said sections having the steep lead angle of the male screw, thus forming flat sections of the thread, which stepwisely lock and unlock screw movements by engaging and disengaging direct contacts of the flat sections."

As explained on page 19, lines 3-15 and shown in Figure 4, when the flat sections of the thread of the multi-pitch nut mates with the flat sections of the thread of the multi-pitch screw, the screw is prevented to rotate back because the frictional force between the mating flat sections is greater than the frictional force between the mating steep sections.

Applicants respectfully submit that claims 3 and 11 are definite.

E. Rejections under § 102(b)

Claims 1-2, 10, and 17-18 had been rejected as being anticipated by Pearson (US 113,557). The examiner has taken the position that Pearson has taught every element of the present invention.

Claim 1 has been amended by adding the limitation of a thread having both sides of the thread formed such that sections having a mild lead angle and sections having a steep lead angle are arranged alternately, continuously and stepwisely during a single turn along a spiral line.

The thread has been shown in every figures of the invention. In particular, Figures 7, 11, and 14 shows the shape of the thread of present invention to be a parallelogram with both sides of the thread rise and flattened simultaneously. The thread of this invention thus forms upward steps on both sides.

Pearson teaches a combination of a screw and a nut with "a series of indentations or grooves" on the upper side of the thread. The other side of the thread is plain. Person requires the plain side of the thread so that it slips when the bolt is screwed. If both side of the thread of Pearson are indented, the bolt can not be screwed in.

Applicants therefore respectfully submit that claim 1 is not anticipated by Pearson because Pearson does not teach or suggest a thread line with both sides have corresponding mild and steep sections. Similarly, Pearson does not anticipate the dependent claims 2, 10, 17 and 18 either.

F. Conclusion

In view of the foregoing and the enclosed, it is respectfully submitted that the application is in condition for allowance and such action is respectfully requested. Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account # 02-2275.

Respectfully submitted,

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